

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) An energy conditioner comprising:
 - an A conductor including an A overlap portion and an A1 tab, wherein said A overlap portion has A major surfaces and A side edges between said A major surfaces;
 - a B conductor including a B overlap portion and a B1 tab, wherein said B overlap portion has B major surfaces and B side edges between said B major surfaces;
 - a G conductor including a G overlap portion, a G1 tab, and a G2 tab;
 - at least one dielectric material;
 - wherein said A overlap portion, said B overlap portion, and said G overlap portion define an overlap region;
 - wherein said G overlap portion is between said A overlap portion and said B overlap portion;
 - wherein said A overlap portion, said B overlap portion, and said G overlap portion are conductively isolated from one another in the overlap region;
 - said G conductor is conductively isolated from said A conductor and said B conductor;
 - and
 - wherein said at least one dielectric material covers side edges of said A overlap portion and said B overlap portion.
2. (Original) The conditioner of claim 1 wherein said A conductor has no other tab than said A tab.
3. (Original) The conditioner of claim 2 wherein said B conductor has no other tab than said B tab.
4. (Original) The conditioner of claim 3 wherein said G conductor has no other tabs than said G1 tab and said G2 tab.
5. (Original) The conditioner of claim 1:

wherein said A tab has an A tab substantially flat surface at the region where said A tab extends out of said overlap region; and

wherein said A tab substantially flat surface is covered by said at least one dielectric material where said A tab extends out of said overlap region.

6. (Original) The conditioner of claim 1 wherein said A overlap portion, said B overlap portion, and said G overlap portion define a layered structure.

7. (Original) The conditioner of claim 1 further comprising a first outside conductive path, said first outside conductive path being outside said overlap portion, said first outside conductive path connecting said G1 tab to said G1 tab, wherein said first outside conductive path has a first outside conductive path cross section, and said first outside conductive path cross section is not circular.

8.-17. (Canceled).

18. (Original) The conditioner of claim 1 wherein said G1 tab extends out of said overlap region in a G1 tab direction, said A1 tab projects out of said at least one dielectric material in an A1 tab direction, said B1 tab projects out of said at least one dielectric material in a B1 tab direction, and said G1 tab direction is different than both said A1 tab direction and said B1 tab direction.

19. (Original) The conditioner of claim 18 wherein said G1 tab direction is different from each of said A1 tab direction and said B1 tab direction by at least forty five degrees.

20. (Canceled).

21. (Original) The conditioner of claim 1 wherein said A1 tab, said B1 tab, and said G1 tab are located at different positions along a overlap direction perpendicular to said A major surfaces such that said different positions have no overlap along said overlap direction.

22. (Original) The conditioner of claim 1 wherein portions of said A1 tab, said B1 tab, said G1 tab, and said G2 tab that are not coated or potted with dielectric are sufficiently spaced apart to prevent dielectric breakdown, or flash-over, in air, when 120 volt 60 cycle power is applied across said A1 tab and said B1 tab.

23. (Original) The conditioner of claim 22 wherein portions of said A1 tab, said B1 tab, and said G1 tab, that are not coated with dielectric are spaced from one another by at least 3 millimeters.

24. and 25. (Canceled).

26. (Original) The conditioner of claim 1 wherein:
each tab has a cross section having a cross section height and a cross section width;
said overlap region defines an overlap direction perpendicular to said A major surfaces,
said cross section head measured along said overlap direction;
each tab has a width measured in a direction parallel to a plane defined by said A major surface and perpendicular to a direction along which the tab projects from said overlap region;
each cross section of said A1 tab and said B1 tab has a width to height ratio of at least 2.

27. (Original) The conditioner of claim 26 wherein each cross section of said A1 tab and said B1 tab has a width to height ratio of at least 6.

28. (Original) The conditioner of claim 26 wherein each cross section of said A1 tab, said B1 tab, and said G1 tab has a width to height ratio of at least 10.

29.-40. (Canceled).

41. (Original) The conditioner of claim 1 wherein said A conductor includes an A2 tab, and said A1 tab and said A2 tab protrude from said overlap region on opposite sides of said overlap region.

42.-54. (Canceled).

55. (Original) A connector comprising the conditioner of claim 1, wherein:

said connector comprises an A pin structure, a B pin structure, and a conductive housing;

said A pin structure includes a male or female pin and a first A conductive path extending to and conductively contacting said A1 tab;

said B pin structure includes a male or female pin and a first B conductive path extending to and conductively contacting said B1 tab; and

said conductive housing substantially encloses said A conductor, said B conductor, said G conductor, and at least a portion of said A pin structure and said B pin structure.

56. (Original) The connector of claim 55, wherein:

a first outside conductive path outside said overlap region connects said G1 tab to said G2 tab.

57.-72. (Canceled).

73. (Original) A method of making an energy conditioner comprising:

providing an A conductor including an A overlap portion and an A1 tab, said A overlap portion has A major surfaces, A side edges between said A major surfaces;

providing a B conductor including a B overlap portion and a B1 tab, said B overlap portion has B major surfaces, and B side edges between said B major surfaces;

providing a G conductor including a G overlap portion, a G1 tab, and a G2 tab;

providing at least one dielectric material;

wherein said A overlap portion, said B overlap portion, and said G overlap portion define an overlap region;

wherein said G overlap portion is between said A overlap portion and said B overlap portion in said overlap region;

wherein said A overlap portion, said B overlap portion, and said G overlap portion are conductively isolated from one another in the overlap region;

wherein said G conductor is conductively isolated from said A conductor and said B conductor; and

wherein said at least one dielectric material covers side edges of said A overlap portion and said B overlap portion.

74. (Original) A method of using an energy conditioner, said conditioner comprising:

an A conductor including an A overlap portion and an A1 tab, said A overlap portion has A major surfaces, A side edges between said A major surfaces;

a B conductor including a B overlap portion and a B1 tab, said B overlap portion has B major surfaces, and B side edges between said B major surfaces;

a G conductor including a G overlap portion, a G1 tab, and a G2 tab;

at least one dielectric material;

wherein said A overlap portion, said B overlap portion, and said G overlap portion define an overlap region;

wherein said G overlap portion is between said A overlap portion and said B overlap portion in said overlap region;

wherein said A overlap portion, said B overlap portion, and said G overlap portion are conductively isolated from one another in the overlap region;

wherein said G conductor is conductively isolated from said A conductor and said B conductor; and

wherein said at least one dielectric material covers side edges of said A overlap portion and said B overlap portion, said method comprising:

transmitting electrical signals or electrical power to said A conductor and said B conductor.